

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: DUNKLEE POND	Lake Area (ha): 9.71
Town: HOLLIS	Maximum depth (m): 2.1
County: Hillsborough	Mean depth (m): 0.7
River Basin: Merrimack	Volume (m ³): 64500
Latitude: 42°46'10" N	Relative depth: 0.6
Longitude: 71°35'05" W	Shore configuration: 3.62
Elevation (ft): 255	Areal water load (m/yr): 19.09
Shore length (m): 4000	Flushing rate (yr ⁻¹): 28.70
Watershed area (ha): 386.4	P retention coeff.: 0.48
% watershed ponded: 3.6	Lake type: natural w/dam

BIOLOGICAL:

20 January 1992

19 August 1991

DOM. PHYTOPLANKTON (% TOTAL)	#1	DINOBRYON 75%	CHRYSPHAEERELLA 60%
	#2	SYNURA 10%	DINOBRYON 25%
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			
CHLOROPHYLL-A (µg/L)			5.26
DOM. ZOOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	KERATELLA 57%
	#2		NAUPLIUS LARVA 19%
	#3		
ROTIFERS/LITER		27	95
MICROCRUSTACEA/LITER		14	25
ZOOPLANKTON ABUNDANCE (#/L)		54	133
VASCULAR PLANT ABUNDANCE			Very abundant
SECCHI DISK TRANSPARENCY (m)			1.8 Visible on bottom
BOTTOM DISSOLVED OXYGEN (mg/L)		9.7	6.9
BACTERIA (fecal col., #/100 ml) #1			
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

not stratified

Depth of thermocline (m): None
Hypolimnion volume (m³) : None
Anoxic volume (m³) : None

CHEMICAL:

Lake: DUNKLEE POND

Town: HOLLIS

	20 January 1992		19 August 1991		
DEPTH (m)	1.0	1.5	1.0		
pH (units)	6.2	6.3	7.0		
A.N.C. (Alkalinity)	13.5	15.2	11.1		
NITRATE NITROGEN	0.08	0.06	< 0.05		
TOTAL KJELDAHL NITROGEN					
TOTAL PHOSPHORUS	0.006	0.008	0.011		
CONDUCTIVITY (μ mhos/cm)	126.3	138.0	124.2		
APPARENT COLOR (cpu)			23		
MAGNESIUM			1.45		
CALCIUM			5.9		
SODIUM			13.9		
POTASSIUM			1.23		
CHLORIDE	21	24	26		
SULFATE	9	9	6		
TN : TP					
CALCITE SATURATION INDEX			2.5		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1991

D.O. S.D. PLANT CHL TOTAL CLASS

**	3	6	1	10	Eutro.
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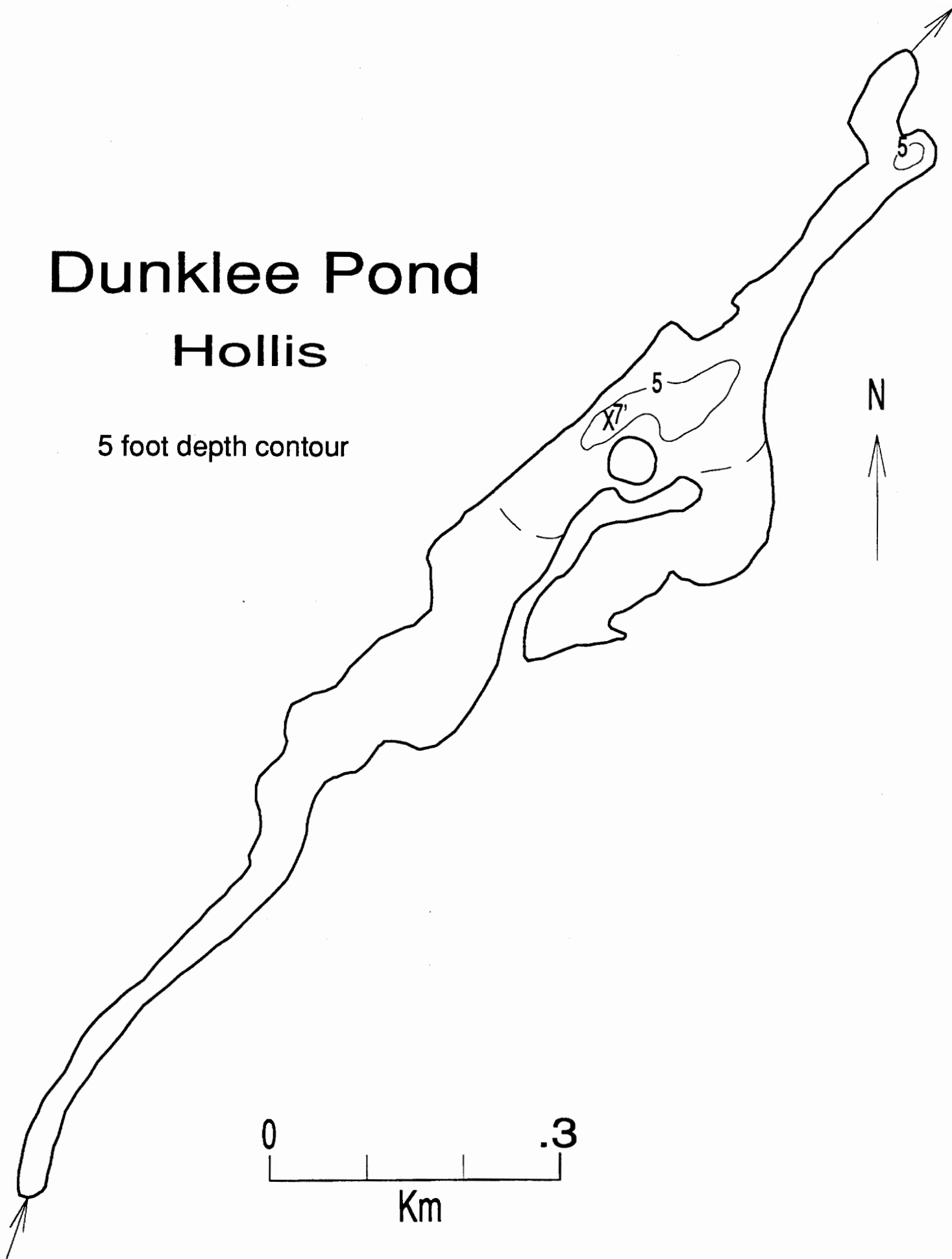
COMMENTS:

1. Also known as Pennichuck Brook Pond II.
2. This pond was listed in NHSP (1964) as Unnamed Pond #1.
3. Town forest and conservation area was located around the pond. Access was through a locked gate. Access was steep and dirt.
4. This pond is more wetland than pond.
5. No wholewater plankton analysis was completed.

Dunklee Pond

Hollis

5 foot depth contour



[illegible]

TOWN: HOLLIS
WEATHER: RAINY & WINDY (HURRICANE BOB)

[illegible]

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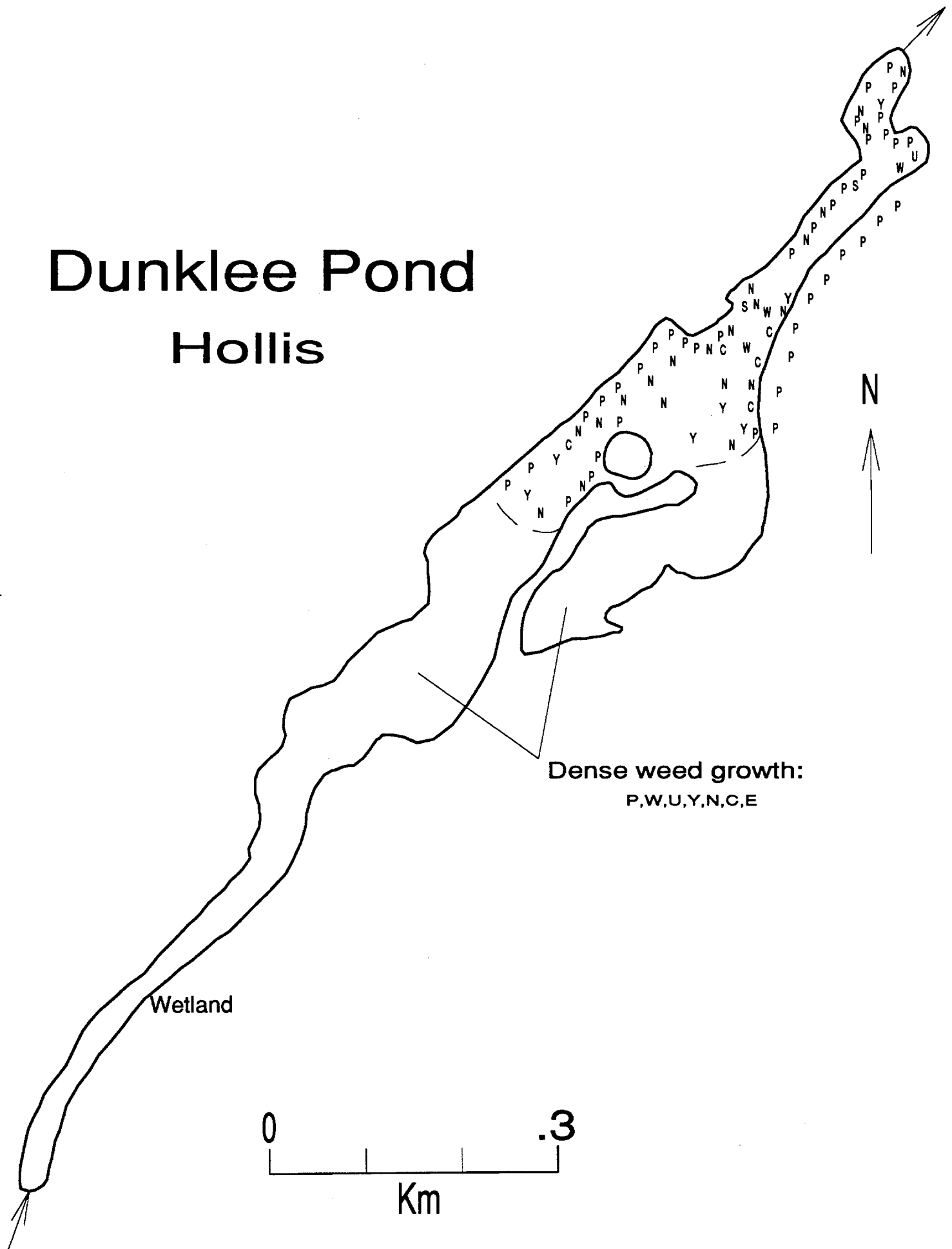
SECCHI DISK (m):    1.8 VOB      COMMENTS:
BOTTOM DEPTH (m):   1.8
TIME:              1145

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***Dissolved oxygen values are in mg/L**

Dunklee Pond

Hollis



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